



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/672,287	09/28/2000	Keiko Matsubara	40589/DBP/Y35	8798

23363 7590 08/02/2002

CHRISTIE, PARKER & HALE, LLP  
350 WEST COLORADO BOULEVARD  
SUITE 500  
PASADENA, CA 91105

EXAMINER

YUAN, DAH WEI D

ART UNIT	PAPER NUMBER
----------	--------------

1745

DATE MAILED: 08/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/672,287

Applicant(s)

MATSUBARA ET AL.

Examiner

Dah-Wei D. Yuan

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 6-11 and 13-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-11 and 13-15 is/are allowed.
- 6) ☒ Claim(s) 1-4, 7 and 8 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_

Art Unit: 1745

**NEGATIVE ACTIVE MATERIAL FOR RECHARGEABLE LITHIUM BATTERY  
ELECTRODE FOR RECHARGEABLE LITHIUM BATTERY, AND METHOD OF  
PREPARING NEGATIVE ACTIVE MATERIAL FOR RECHARGEABLE LITHIUM  
SECONDARY BATTERY**

Examiner: Yuan

S.N. 09/672,287

Art Unit: 1745

July 30, 2002

**Detailed Action**

1. The Applicant's amendment filed on May 22, 2002 was received. Claims 5,12 were cancelled. Claims 1,9 were amended. A declaration under 37 C.F.R. §1.132 was received.
2. The text of those sections of Title 35, U.S.C. code not included in this action can be found in the prior Office Action (Paper No. 5).

***Claim Rejections - 35 USC § 102***

3. Claims 1-4,7,8 are rejected under 35 U.S.C. 102(e) as being anticipated by Goda et al. (US 6,004,695).

Goda et al. teach a non-aqueous secondary battery comprising a positive electrode material, a negative electrode active material and a separator. The negative electrode material mainly comprises an amorphous oxide containing at least one functional element selected from the group consisting of Sn, Mn, Fe, Pb, and Ge. The amorphous composite oxides can be synthesized by a calcination method or a solution method. Calcination is carried out preferably at temperatures of 500° to 1500°C. The resulting compound has an average particle size of 0.1 to 60 μm. In addition to the amorphous oxide, the negative electrode material also comprises flake graphite, lithium acetate and binders. These compounds are then kneaded in water to form

a slurry. The slurry is applied to a copper foil by extrusion coating method, dried, compressed with calendaring, and cut to prescribed width and length to prepare a negative electrode. Goda et al. do not specifically disclose nature of the resulting compound after kneading and calendaring operation. However, it is the position of the examiner that such properties are inherent, given that both Goda et al. and the present application utilize similar mixing procedures. A reference which is silent about a claimed invention's features is inherently anticipatory if the missing feature *is necessarily present in that which is described in the reference*. Inherency is not established by probabilities or possibilities. In re Robertson, 49 USPQ2d 1949 (1999). See Abstract; Column 12, Lines 36-60; Column 13, Lines 33-36; Column 14, Lines 21-22; Example 8.

### ***Claim Rejections - 35 USC § 103***

4. The claim rejections under 35 U.S.C. 103(a) as unpatentable over Yoneda et al. on claims 1-5,7-12,15 are withdrawn, because claims 1,9 have been amended.

### ***Allowable Subject Matter***

5. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 6 would be allowable because the closest prior art of record, Goda et al. and Yoneda et al., do not disclose or suggest the metal compound includes one or both of SnO<sub>2</sub> or SnO.

Art Unit: 1745

6. Claims 9-11,13-15 are allowed. Claims 9-11,13-15 are allowable because the closest prior arts of record, Goda et al. and Yoneda et al., do not disclose or suggest the use of a fatty acid metal salt in the preparation of a negative active material for a rechargeable lithium battery, in which the fatty acid metal salt includes one or more metals selected from the group consisting of Sn, Ag, Fe, Pd, Pb, Al, Si, In, Ni, Co, Zn and Cd.

***Response to Arguments***

7. Applicant's arguments filed on May 22, 2002 have been fully considered but they are not persuasive.

*Applicant's principle arguments are*

*The process of Goda reference does not produce a negative active material in particle-agglomerated form, but instead produces slurry as alleged in the Declaration (paragraph 5).*

In response to Applicant's arguments, please consider the following comments.

As recognized in the declaration, the ingredients of the negative electrode material are kneaded (mixed mechanically) to prepare a slurry. The slurry is then extrusion coated onto a copper foil, followed by drying and compression (by calendaring). The resulting compound is void of liquid medium and forms a powder agglomerate comprising the graphite and an amorphous metal compound as synthesized in Example 1 of the Goda reference.

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dah-Wei D. Yuan whose telephone number is (703) 308-0766. The examiner can normally be reached on Monday-Friday (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (703) 308-0756. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Application/Control Number: 09/672,287


Page 5 of 5

Art Unit: 1745

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Dah-Wei D. Yuan

July 30, 2002

  
CAROL CHANEY  
PRIMARY EXAMINER